Vol. 77, pp. 65–72 26 June 1964

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NOMENCLATURAL AND DESCRIPTIVE NOTES ON *ORODESMA APICINA* H.-S. AND ITS SUBSPECIES (LEPIDOPTERA, NOCTUIDAE)

By E. L. Todd
Entomology Research Division, Agric. Res. Serv. U. S. Department of Agriculture, Washington, D. C.

The erebine noctuid species of Cuba were last treated as a group by Gundlach (1881) in his paper on the lepidopterous fauna of that island. The majority of the included species occur elsewhere in the Antilles and/or continental America and, accordingly, have been treated in subsequent World catalogues, or in faunal studies of the other areas where they occur, or in taxonomic works of the different groups to which they belong. A few names applicable to species occurring in Cuba have remained unused or have been used only a few times in the last 50 years or more. They are mostly names referable to species that are restricted to Cuba and/or belong to groups that have not been subsequently treated in catalogues or taxonomic revisions. One name, *Orodesma apicina* Herrich-Schäffer, does not fall within the categories listed above. The combination has been overlooked or ignored. Wolcott (1923: 174 and 1936: 438) is the only author to utilize the name during the past 50 years. He either misspelled the generic name or a typographical error occurred because the name appears as *Orodesmia.* In the more recent literature the names *Lois lorina* (Druce) or *Boryzola lorina* (Druce) have been applied to the species.

The generic name, *Orodesma* H.-S., is listed in the nomenclators of Schulze *et al.* (1933: 2387) and Neave (1940, 3: 463); but that name and the specific name *apicina* were not utilized by Richards (1936, 1939) in his generic and specific studies of the group to which the species belongs. It is difficult to understand why the name was overlooked or ignored since in taxonomic studies of that kind all generic names applicable to a group should be considered. It is especially surprising that Richards did not consult the literature pertaining to the Cuban fauna since he had two records of the species from Florida! Failure to consult the literature pertaining to this species has resulted in other confusing aspects relating to the synonymy of *apicina*. Draudt and Gaede (1944: 498, pls. 73, row g and 82, row *d*) listed *Boryzola lorina* (Druce) and *Boryzola juanita* (Schaus) as distinct species even though Schaus had synonymized his name to *lorina* 18 years before! Their illustrations of specimens representing the two names are quite different; that of *juanita* (pl. 73, row *g*) is excellent, but that of *lorina* (pl. 82, row *d*) is extremely poor and not at all like the figure provided by Druce (1898, pl. 94, fig. 15)!

A strict interpretation of Article 23, Section (b), of the 1961 International Code of Zoological Nomenclature would require that *Orodesma apicina* Herrich-Schäffer be considered a nomen oblitum. This section, a limitation of the Law of Priority, states, "A name that has remained unused as a senior synonym in the primary zoological literature for more than fifty years is to be considered a forgotten name (nomen oblitum)." To determine whether a name is a nomen oblitum, a zoologist must first determine whether the papers utilizing the name in question are to be classified as "primary zoological literature." Others have already written papers commenting on the impracticability of attempting to categorize the literature in such a manner. Personally, I do not believe that we should so categorize the literature; and even if we were so inclined, I doubt that the category—primary zoological literature—could be satisfactorily defined.

In the case of *Orodesma* Herrich-Schäffer, it is not important whether the nomenclators of Schulze *et al.* (1933) and Neave (1940) are considered to belong to the "primary zoological literature" because those important, commonly used works do not indicate synonymy. Wolcott (1923, 1936) merely listed the combination *Orodesmia apicina* H.-S. and did not cite synonyms. Since Article 23, Section (b), specifically defines a nomen oblitum as a name that has remained unused as a *senior synonym* [my italics] in the primary zoological literature for more than 50 years, the preceding usage of the name in question would not make it available. Thus, we would be required to utilize junior synonyms, conceivably even the most recently proposed ones, in all instances in which the synonymy has not been recognized and the oldest name is more than 50 years of age. It seems obvious that the proponents of the limitation of the Law of Priority never intended that the limitation would be so applied; but in the absence of a knowledge of their intent, we have only the wording of the limitation to serve as a guide. If we are to follow the limitation of the Law of Priority, we would also have to consider as nomina oblita all names that are more than 50 years old and that have no junior synonyms. They have no synonyms and accordingly could not have been used as senior synonyms as defined in the "Glossary" of the new Code, p. 152. It would not matter how many references to the name existed nor how recent they might be.

The import of the application of the limitation of the Law of Priority, at least as presently worded, certainly will vary according to the group of animals concerned, the differences in the size of the group and our state of knowledge of the group being important factors in the variation. In the Insecta, because of the tremendous number of names involved, the infrequency of treatment of many of them, and the specific wording of the limitation, a very large number of taxa would have to be considered to be nomina oblita. Within this class, its orders and families, the import of application of the limitation of the Law of Priority would vary. In the lepidopterous family Noctuidae the effect of application of Article 23, Section (b), would be chaotic. In that family, the work of almost all of the major describers occurred more than 50 years ago, many of the described species have not been subsequently treated, and several subfamilies have never been catalogued. As an example of the infrequency of treatment, I refer the reader to the genus *Gonodonta* Hübner, a member of the huge, uncatalogued subfamily Erebinae. I select this genus as an example because the bibliographic references are available as the result of a taxonomic revision (Todd, 1959). At the time of the generic revision, 26 of the 57 previously proposed names had not been used in the preceding 50 years, and 9 of the 26 had not been used in the preceding 100 years. Seven other names had not been used for more than 45 years. It is also interesting that the only reference for 18 of the 57 names was the original description! Application of the limitation of the Law of Priority appears to me to penalize the taxonomists whose works were published more than 50 years ago for the failure of more recent workers to completely survey the literature and the resultant inability to recognize the zoological entities described and the names applied thereto. Even worse, it would reward slipshod taxonomy by considering junior synonyms to be the correct names for such entities! I do not believe that such a system will better serve the stability and universality of nomenclature.

It is my opinion, therefore, that *Orodesma apicina* Herrich-Schäffer should be considered to be the valid name for the genus and species more recently referred to as *Lois lorina* (Druce). The generic and specific synonymical biblographies are as follows:

Orodesma Herrich-Schäffer

Orodesma Herrich-Schäffer, 1868, Corresp.-Blatt Zool.-Min. Ver. Regensburg (Naturw. Ver. Regensburg), 22 (12/13): 179.—Zool. Rec.

(1869) 1870, p. 399.—Gundlach, 1881, Contribución á la Entomología Cubana, Lepidopteros, Vol. 1, p. 325.—Möschler, 1890, Senck. Naturf. Gesell. Abhandl., 16: 350 (Genus # 185 in Systematische Aufzahlung der auf Cuba und Portorico aufgefundenen Lepidopteren.).—Anonymous, 1895, Catalogo Numerico del Museo Zoologico Cubano (Museo Gundlach), p. 76, # 765.—Schulze *et al.*, 1933, Nomenclator animalium generum et subgenerum, p. 2387.—Neave, 1940, Nomenclator Zoologicus, Vol. 3, p. 463. (Type of genus: *Orodesma apicina* Herrich-Schäffer, monobasic.)

Orodesmia Herrich-Schäffer, Wolcott, 1923, J. Dept. Agric. Porto Rico, 7 (1): 174; 1936, J. Agric. Univ. Puerto Rico, 20 (1): 438. (Lapsus pro *Orodesma* H.-S.)

Lois Dyar, 1924, Ins. Insc. Menst., 12: 16.—Zool. Rec., (1924) 1925, p. 196.—Colcord, 1925, Index 3, Lit. Amer. Econ. Ent., p. 241.—Barnes and Benjamin, 1926, Washington Ent. Soc. Proc., 28 (1): 20.—Richards, 1936, Revista Ent., 6 (3/4): 371; 1939, Ent. Amer., n. s., 19 (1): 72.—Neave, 1940, Nomenclator Zoologicus, Vol. 2, p. 986.—Draudt and Gaede, 1944, *in* Seitz, Die Gross-schmetterlinge der Erde, Vol. 7, p. 498. (Type of genus: *Lois monoflex* Dyar, monobasic.) [New synonymy.]

Boryzola Hampson, 1926, New Genera and Species of Noctuinae in the British Museum, p. 46.—Zool. Rec., (1926) 1927, p. 265.—Richards, 1936, Revista Ent., 6 (3/4): 371 (as jr. syn. of *Lois* Dyar).—Neave, 1939, Nomenclator Zoologicus, Vol. 1, p. 454.—Draudt and Gaede, 1944, *in* Seitz, Die Gross-schmetterlinge der Erde, Vol. 7, p. 498. (Type of genus: *Polia* (?) *lorina* Druce, original designation and monobasic.)

Draudt and Gaede (1944: 498) treated *Boryzola* and *Lois* as distinct genera, stating the third papal segment of the former was short, that of the latter slender, as long as the second. In *apicina* and other species of *Orodesma*, except *monoflex*, the third segment of the labial palpi of the males is short; but that structure is long and slender in the females. In the males of *monoflex* the third segment of the labial palpus is long and slender. Only males of that species have been available to me for study and accordingly the nature of the palpus in the female is unknown. It is my opinion that the palpal difference between the males of *monoflex* and the other species of *Orodesma* should be considered to be a specific difference. This opinion is based on the similarity of other characters and on the known variation of secondary sexual characters in the closely related genus *Boryzops* Richards. The generic name *Pseudbarydia* Hampson (1924: 425) may also prove to be a synonym of *Orodesma* H.-S., but further study will be required to determine whether this conjecture is correct.

Orodesma apicina Herrich-Schäffer

Orodesma apicina Herrich-Schäffer, 1868, Corresp.-Blatt. Zool.-Min. Ver. Regensburg (Naturw. Ver. Regensburg), 22 (12/13): 179.—

Gundlach, 1881, Contribución á la Entomología Cubana, Lepidopteros, p. 325.—Möschler, 1890, Senck. Naturf. Gesell. Abhandl., 16: 350 (Species # 417 in Systematische Aufzahlung der auf Cuba und Portorico aufgefundenen Lepidopteren.).—Anonymous, 1895, Catalogo Numerico del Museo Zoologico Cubano (Museo Gundlach), p. 76, # 765.

Polia (?) *lorina* Druce, 1890, Proc. Zool. Soc., p. 515; 1898, *in* Godman and Salvin, Biologia Centrali-Americana, Insecta, Lepidoptera, Heterocera, Vol. 2, p. 486, pl. 94, fig. 15. [New synonymy.]

Catacala juanita Schaus, 1894, Trans. Amer. Ent. Soc., 21: 241; 1926, *in* Barnes and Benjamin, Proc. Ent. Soc. Washington, 28 (1): 20 (As synonym of *lorina* Druce).

Lois lorina (Druce), Barnes and Benjamin, 1926, Proc. Ent. Soc. Washington, 28 (1): 20.—Richards, 1936, Revista Ent., 6 (3/4): 371; 1939, Ent. Amer., ser. n. 19 (1): 72, pl. 5, fig. 19.

Boryzola lorina (Druce), Hampson, 1926, New Genera and Species of Noctuinae in the British Museum, p. 46.—Draudt and Gaede, 1944, *in* Seitz, Die Gross-schmetterlinge der Erde, Vol. 7, p. 498, pl. 82, row *d*.

Boryzola juanita (Schaus), Draudt and Gaede, 1944, *in* Seitz, Die Gross-schmetterlinge der Erde, Vol. 7, p. 498, pl. 73, row *g*.

Orodesma apicina H.-S. is known to occur in Cuba, Florida, México, Guatemala, Venezuela, Ecuador, and Brazil. The specimens from the latter two countries, from localities of the eastern watershed of the Andes, are of a different phenotype than the other 19 specimens in the collection of the U. S. National Museum and are described below as a new subspecies. The other specimens are all presently considered to be typical *apicina*. Some slight differences have been observed in various geographical populations of *O. apicina apicina* H.-S., but they do not appear to be completely constant and our series are far too small to determine the importance of the differences noted. Specimens from Sinaloa in western México, including the type of *lorina* Druce, appear to be paler and much less conspicuously marked than specimens from other areas. Specimens from Cuba and some from Florida appear to have the postmedial line between Cu_1 and the inner margin of the forewing straighter than in specimens agreeing with the type of *juanita* Schaus and occurring in eastern México, Central America, and northwestern South America.

Types: The type of *apicina* H.-S. from Cuba is now in the newly formed National Collection, Havana, Cuba via the Gundlach collection. The original description and the subsequent redescription by Gundlach are quite adequate for recognition of the species. In addition, I have received, through the courtesy of Fernando de Zayas of Havana, a photograph of another Cuban specimen that he has compared with the type. The type of *lorina* Druce from Presidio de Mazatlán, Sinaloa, México, is in the British Museum (Natural History), London; that of *juanita* Schaus from Paso San Juan, Veracruz, México, is in the U. S. National Museum, Washington.

FIGS. 1–2, ♂ and ♀, *Orodesma apicina apicina* H.-S., Cayuga, Guatemala. FIGS. 3–4, Holotype ♂ and paratype ♀, *Orodesma apicina obliqua*, n. subsp., Santa Catarina, Brazil.

Orodesma apicina obliqua, new subspecies

This subspecies differs primarily from typical *apicina* in the shape, size, and direction of the costal half of the antemedial line. In *apicina obliqua* the antemedial line is more oblique, heavier, and extends to the median line in cell Cu_1 (Figs. 3–4). Specimens of this subspecies also average slightly larger than those of *apicina apicina* and have the forewings darker, the black marks more conspicuous than in the typical subspecies (Figs. 1–2). Length of forewing: Male, 29 to 34; female, 35 mm.

Types: Holotype, male, Santa Catarina, Brazil, Type No. 64638; 1 female paratype, same place; 1 male paratype, same place, donor F. Johnson; 1 male paratype, Joinville, Santa Catarina, Brazil, 286, Collection Wm. Schaus; 1 male paratype, Nova Teutonia, Santa Catarina, Brazil, Fritz Plaumann; 1 male paratype, Jatunyacu, Oriente, Ecuador, March 1937, Wm. C. MacIntyre; in the collection of the U. S. National Museum.

OTHER SPECIES OF *Orodesma* H.-S.

In addition to *apicina* H.-S. and *monoflex* (Dyar) two other species are presently included in *Orodesma* H.-S. They are: *Orodesma ameria* (Druce) n. comb., (1890, Proc. Zool. Soc. London, 515) and *Orodesma fearni* (Schaus) n. comb., (1911, Ann. Mag. Nat. Hist., ser. 8, 7: 58). The original generic placement of *ameria* was "*Polia* (?)." To my knowledge there has been no other reference to the species. Richards (1936: 373) removed *fearni* from *Barydia* Guenee and placed it in *Lois* Dyar.

Draudt and Gaede (1944: 498, pl. 73, row *g*) placed this species in *Boryzola* Hampson.

The name, *nigrosparsata*, proposed as a form of *Boryzola juanita* by Draudt and Gaede (1944: 498) has not been considered in this paper because I have not seen examples and because the name is of infrasubspecific rank.

LITERATURE CITED

DRAUDT, M. AND M. GAEDE. 1944. *In* Seitz, Gross-schmetterlinge der Erde, Vol. 7, 508 pp., 87 pls. Stuttgart.

DRUCE, H. 1891–1900. *In* Godman and Salvin, Biologia Centrali-Americana, Insecta, Lepidoptera-Heterocera, Vol. 2. 622 pp., pls. 41–101.

GUNDLACH, J. 1881. Contribución á la Entomología Cubana, Lepidopteros, 466 pp. Habana.

HAMPSON, SIR G. F. 1924. Descriptions of new genera and species of Trinidad and other South American Noctuidae. Ann. Mag. Nat. Hist., ser. 9, 13: 425–454.

NEAVE, S. A. 1940. Nomenclator Zoologicus, Vol. 3, 1065 pp. London.

RICHARDS, A. G., JR. 1936. A generic synopsis of the *Phoberia-Melipotis Drasteria-Boryza* series of Erebinae (Lepidoptera, Noctuidae). Revista Ent., 6 (3–4): 338–374, 16 figs.

RICHARDS, A. G., JR. 1939. A revision of the North American species of the *Phoberia-Melipotis-Drasteria* group of moths (Lepidoptera, Phalaenidae). Ent. Americana, 19 (1): 1–100, 11 pls.

SCHULZE, F. E., W. KÜKENTHAL AND K. HEIDER. 1933. Nomenclator animalium generum et subgenerum, Vol. 4, Lief. 17, pp. 2249–2408. Berlin.

TODD, E. L. 1959. The fruit-piercing moths of the genus *Gonodonta* Hübner (Lepidoptera, Noctuidae). U. S. Dept. Agric., Tech. Bull. 1201: 1–52, 12 pls.

WOLCOTT, G. N. 1923. "Insectae Portoricensis," A preliminary annotated check-list of the insects of Porto Rico, with descriptions of some new species. J. Dept. Agric. Porto Rico, 7 (1): 1–313.

WOLCOTT, G. N. 1936. "Insectae Borinquenses," A revised annotated checklist of the insects of Puerto Rico. J. Agric. Univ. Puerto Rico, 20 (1): 1–600.